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embedded therein a locking member, said locking member having a toothed edge, a gland-meeting area, and a recess seat-meeting area; said toothed edge disposed in proximity to said spigot-facing surface; said gland-meeting area disposed in proximity to said gland-facing surface, and said recess-seat meeting area disposed in proximity to said recess seat surface.

Remarks Supporting Amendment

The above amendments are believed to comply with the requirements for amendments of Claims, and do not introduce any new matter or disclosure. With respect to the amendments to the specifications, Applicant has merely made revisions to clarify support in the specification for terminology used in the claims. Those skilled in the art would readily know that "bell" is a term for a female pipe portion and that "spigot" is a term for a male pipe portion, so the revisions do not add new matter. Additionally, Claim 13 as originally filed supports the male and female characterization, in that it describes fitting of a first pipe length (a male portion) within the bell end (female portion) of a second pipe length. With respect to the amendments to the claims, the revisions are made for antecedent basis reasons, only, and therefore refer only to language employed in previous locations in the claims.

Responses to Examiner's Remarks in Detailed Action

Reconsideration of the application is respectfully requested. The Application stands rejected as to all claims currently pending, on the basis of 35 U.S.C. 102 over Harper, U.S. Patent No. 5,476,292 ("Harper"). Based on the following analysis and in light of the above amendments, Applicant respectfully requests that the Examiner withdraw the rejections.

Drawings

Examiner's Page 2, Paragraph 1

The Examiner objects to the Drawings for failure to show every feature of the claimed invention. By the above amendment to the Specification, and the following explanation

of reference numerals already present, the Applicant believes that this requirement is met without revision to the drawings.

1. Male First Pipe Portion. The Applicant has amended the specification at *page 9, lines 4-19, specifically line 8*, to include the language used in claim 2, specifically. Previously, the language in that location referred to a “spigot 10.” By way of the amendment above, the language now clarifies - for the sake of demonstrating that the claimed element is shown - that the spigot is “a male first pipe portion, referred to herein as spigot 10.” This amendment to the specification is believed to address the requirement of the examiner, by demonstrating that the first pipe portion is reference number 10, and therefore obviates the need for drawing revision.
2. Female Second Pipe Portion. The Applicant has amended the specification at *page 9, lines 4-19, specifically line 11*, to clarify - for the sake of demonstrating that the claimed element is shown - that the bell 12 is “a female second pipe portion, referred to herein as bell 12.” This amendment to the specification is believed to address the requirement of the examiner by demonstrating that reference number 12, shown in the figures, is the second female pipe portion, and therefore obviates the need for drawing revision.
3. Lip at Inner Diameter of Gland. The examiner requires that the limitation “lip located at an inner diameter of the gland” be shown in the drawings. Applicant respectfully notes that the lip 71 is recited in the specification as originally filed at the paragraph beginning on Page 15, line 26 (the paragraph begins with the words “Yet another embodiment practices...”). This lip 71 is shown in Figure 1, adjacent the gasket 2. The Applicant notes that the examiner suggests the “inner diameter” of the gland is the area surrounding the threads of bolt 45. The bore through which the bolt 45 passes certainly would have an inner diameter, but this would not be interpreted by one skilled in the art as “the inner diameter of gland 11.” Rather, the inner diameter of gland 11 is the radially inner portion, shown by the lip 71, which is in the region of surface 7 in the drawings. This is evidenced at page 4, lines 19-22 of the specification, which discuss the capacity of the lip to extend into the bell and to contact the gasket. Those skilled in the art will know that a gland 11 is a ring-like structure, only a cut-away portion of which is shown in Figure 1. If the examiner believes clarification is required, Applicant suggests an amendment to the description of Figure 1 may be made to indicate that the drawing is a cross-sectional cut-away view. Because lip 71 is specifically recited in the specification and shown in the drawings, no drawing revision is believed to be necessary.

Claim Objections
Examiner's Page 2, Paragraph 2

The Examiner objected to Claim 13 because of the informality of the errant use of the phrase "spigot facing" (without the hyphen) where the phrase "spigot-facing" (with a hyphen) should be used. Applicant has corrected this informality by the amendments above.

Claim Rejections, § 112
Examiner's Page 2, Paragraphs 2 and 3
Examiner's Organizational Structure Retained

Re: Claims 4 & 5.

The Examiner rejects Claim 4 (and consequently Claim 5) as indefinite for the use of the term "a lip" for the second time in the claims depending from Claim 2. Applicant finds no reference to "a lip" or "lip" in Claim 4, and therefore is unable to argue or amend in response to the examiner's rejection, and believes that the rejection was made in error. Claim 5 has been amended to change the reference from "a lip" to "the lip," indicating that the lip referred to is the same lip previously introduced in Claim 2. These amendments are believed to fully comply with and respond to the examiner's action.

Re: Claim 13 & 14.

The Examiner rejects Claim 13 (and by dependency, Claim 14) for failure of antecedent basis of the term "said gland-facing area" in line 3. By way of amendment above, the Applicant has replaced the term "said gland-facing area" with the term "said gland-meeting area," for which antecedent basis is found in the claim.

Claim Rejections, § 102
Examiner's Page 2, Paragraphs 5 and 6

The Examiner rejects all Claims now pending in the application on the basis of Harper. The standard for an anticipation rejection is that "[t]he claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a

single prior art reference.” MPEP 2131. Each of Applicant’s claims, directly or by dependency, includes a locking segment as an element. Absence of a locking segment will render Harper invalid as an anticipating reference. The examiner concludes from Figure 1 that Harper includes, among other elements, a “locking member 10.” Office Action p.3, last line – p. 4, first line. Applicant respectfully points out that the examiner’s interpretation of Harper is inconsistent with the Harper specification, and is unsupported by the Harper Figure 1 itself:

1. Harper’s reference numeral 10 does not refer to a “locking member 10,” but rather to the deformable gasket. Harper at column 4, line 35 (citation format hereafter shall be [column] : [line], in such manner that this reference is 4:35); 4:51-52; 2:49-54.
2. If reference numeral 10 were construed as a locking segment, the Harper figures would be devoid of a sealing gasket (e.g., the Figures do not show both a gasket and a locking member within the gasket), which would also render the Harper reference non-anticipating. Harper, all figures.
3. A thorough review of the Harper reference indicates no discussion of restraining the joint between the sleeve and the inserted pipes; no discussion of locking members; and no use of the term “lock” or “restrain.”
4. No person skilled in the art would be expected to interpret the gasket 10 as shown in Harper as a locking segment, because Harper teaches (3:28-42) and shows (Figs. 1, 2(b), 3(b), and 3(c)) that the shown feature tilts **away** from contact with the spigot.

With respect to the examiner’s discussion of the presence of a tooth, Applicant respectfully notes that the Examiner misinterprets the figures, as shown by the Harper specification.

1. The features of the Harper figures referred to by the Examiner as “tooth” features are clearly defined by the Harper specification as protruding rubber ridges on the gasket, in place to enhance sealing efficiency, not for restraint. Harper 4:51-59; 3:65-4:2. Applicant further notes that the lines leading downward from the ridge points in the figures are merely perspective lines, showing that the ridges continue on the pipe-facing surface of the gasket as that gasket curves away from the viewer.
2. Even if the ribs are interpreted as “teeth,” it should be noted that the Harper figure cited by the examiner does not show the ribs engaging the pipe directly. No indication is present that they must engage the pipe. In fact, the tilting of the gasket away from the

pipe is expressly critical to Harper's invention. Harper 3:28-42. This is contrary to a restraining function.

Accordingly, Harper fails to meet the MPEP 2131 standard for an anticipating reference, in that it omits at least one element common to all of Applicant's claims.

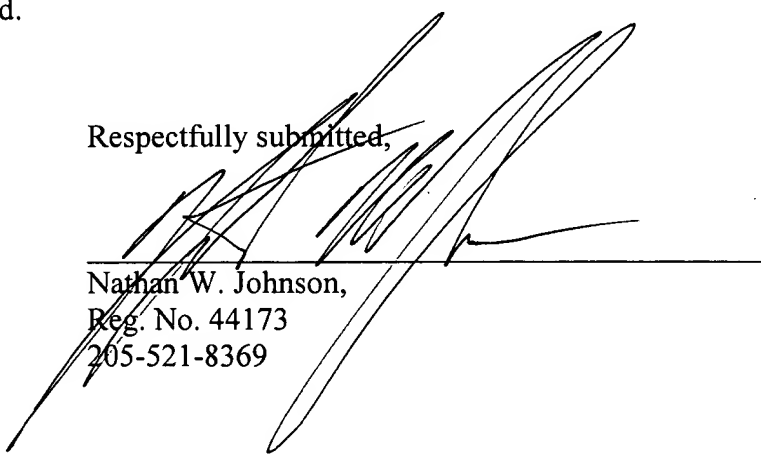
Other Art of Record: Applicant notes that the Examiner cites other art of record, but does not base any rejections thereupon. Accordingly, because these citations are not the basis of any rejection, Applicant believes no response is necessary. Without waiving the right to lodge additional arguments if the examiner bases a formal action on these citations, upon cursory review of the references, Applicant believes it would argue that these references also appear to lack a locking segment (Bird and Greatorrex) or to lack a sealing gasket (Shumard).

Fees

Applicant has attached hereto a check in the amount of \$110.00 for the fees for an extension fee of one month.

Applicant has diligently sought to comply with all requirements and to correct all informalities and objections. The Application is believed to be in condition for allowance, and early approval is respectfully requested.

Respectfully submitted,

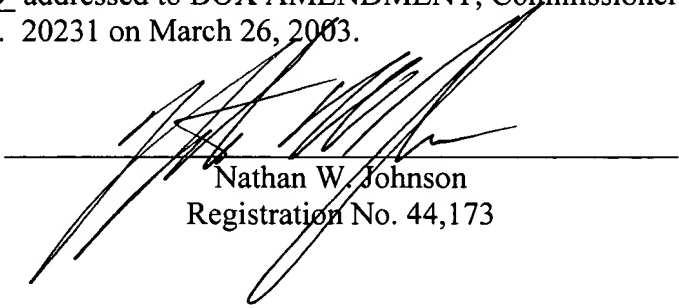


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CERTIFICATE OF EXPRESS MAILING

I hereby certify that the enclosed cover letter (1 pages) and Response to Office Action (12 pages), regarding application Ser. No. 09/590,586, with the appropriate fee (Check for \$110) are being deposited with the "Express Mail" service of the United States Postal Service in an envelope marked EV193765275US addressed to BOX AMENDMENT, Commissioner of Patent and Trademarks, Washington, D.C. 20231 on March 26, 2003.

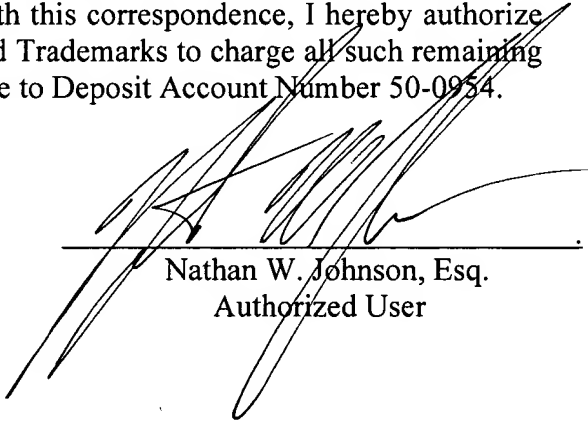


Nathan W. Johnson
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Date: March 26, 2003

AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT

If, after processing the enclosed checks, any charges, fees, or sums due remain unpaid in connection with this correspondence, I hereby authorize the Commissioner of Patents and Trademarks to charge all such remaining fees, charges, and other sums due to Deposit Account Number 50-0954.



Nathan W. Johnson, Esq.
Authorized User

Exhibit A
Replacement Paragraph (Specification) in Marked Up Form

Specification Replacement Paragraph for Page 9, line 4 ff

Turning now to the drawings, Figure 1 presents an exploded diagram of a typical mechanical joint. Assembly of the joint according to the current invention is practiced as known in the art. Particularly, without limitation of the known variants which shall be as equally applicable to the present invention as they are to the known art, the joint contains the following elements in the following relationship. Compression ring or gland **11** is placed on a male first pipe portion, or referred to herein as spigot 10, following which gasket **2** is placed around the exterior of spigot **10**. Spigot **10** is then advanced within a female second pipe portion, referred to herein as bell 12, until the end **41** of spigot **10** is stopped by an annular shoulder **42** within bell **12**. Gasket **2** is advanced into bell **12** until it seats in the annular gasket recess seat **43**, as shown. Gland **11** is then abutted against gasket **2** and is secured to bell **12** by restraining means **44**, which are presented for illustration here as bolts **45** passing through perforations **46** and engaged by nuts **47**; as is evident, upon drawing up or tightening of nuts **47**, gland **11** is compressed against gasket **2**, causing it to compress. Due to the constraining presence of gasket recess seat **43** and gland **11**, deforming of gasket **2** is directed primarily radially inward toward and into sealing engagement with spigot **10**. The invention of the present disclosure builds upon this interrelationship and requires no changes to the spigot, bell, or gland, though such changes may be accommodated within the spirit of the invention if such modifications are otherwise desired.

Exhibit B
Amended Claims in Marked Up Form

5. (Twice Amended) A pipe joint as in claim 4, wherein said back portion is adapted to interpose between ~~a~~ the lip of said gland and the second pipe portion.
13. (Thrice Amended) A gasket interchangeable with gaskets of standard mechanical pipe joints, for securing the ends of intersected assembled pipe portions, said gasket comprising a compressible body adapted to encircle a spigot end of a first pipe length and adapted to fit within a bell end of a second pipe length; said gasket having a spigot-facing surface, a gland-facing surface, and a recess seat surface; said compressible body having embedded therein a locking member, said locking member having a toothed edge, a gland-meeting area, and a recess seat-meeting area; said toothed edge disposed in proximity to said ~~spigot-facing~~ spigot-facing surface; said ~~gland-facing~~ gland-meeting area disposed in proximity to said gland-facing surface, and said recess-seat meeting area disposed in proximity to said recess seat surface.